

Appl. No. 10/605,613
Amdt. dated June 27, 2006
Reply to Office action of May 02, 2006

Amendments to the Specification:

Please replace paragraph 0019 with the following amended paragraph:

Please refer to Fig.2. Fig.2 is a function block diagram of an electronic system 30 of the present invention. The electronic system 30 utilizes a wireless input apparatus 36 as an input interface for supporting input requirement of multiple hosts (such as the host 34A and 34B shown in Fig.2). The hosts 34A and 34B each include a processing module 38A and 38B, a volatile memory 45A and 45B, a non-volatile storage device 46A and 46B, and a radio module 48A and 48B. The host 34A can be a personal computer or a notebook. The processing module 38A includes a processor 40A for controlling the host 34A, and a chip set 42A for controlling data transmission among the processor 40A, the memory 45A, and the storage device 46A. The host 34B can be a personal digital assistant, and is controlled by the processing module 38B. The memory of each host is used to hold data and programs that the corresponding processing module needs, and the storage device of each hosts is for storing data in a non-volatile way. Furthermore, the input apparatus 36 includes an input interface 52, a control circuit 50, a radio module 48K, and a storage device 46K. The control circuit 50 is used to control the input apparatus 36. In a preferred embodiment of the present invention, the input apparatus 36 is a wireless keyboard, and the input interface 52 includes a plurality of keys 53. When a user presses different keys 53, the input interface 52 will correspondingly generate different control signals 56A, and transmit the control signals 56A to the control circuit 50. The storage device 46K is used to store data in a non-volatile way, and the storage device 46K includes an identity table 58 as shown in Fig.2. The identity table 58 has plural ~~columns~~ rows (such as ~~columns~~ rows 59A and 59B), and the user can select transmitting data of

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any one ~~column~~ row in the identity table 58 to the control circuit 50.

Please replace paragraph 0024 with the following amended paragraph:

5 After the above-mentioned operations, each radio module of the electronic system 30 of the present invention can be aware of each other, and initiate the handshaking procedure. By performing the handshaking procedure, the packets transmitted between two radio modules will not be received and resolved by other radio modules. In the present invention, the connection
10 between the input apparatus 36 and a specific host allows the specific host to receive and resolve the packets having data and commands that the user input via the input apparatus 36. The ~~columns~~ rows of the identity table 58 are used to store the identities of corresponding hosts. As shown in Fig.2, the ~~columns~~ rows 59A and 59B of the identity table 58 each store the
15 identities IDA and IDB of the radio modules 48A and 48B corresponding to the hosts 34A and 34B, thus the input apparatus 36 can input data in the hosts 34A and 34B. In other words, the identities IDA and IDB corresponding to the radio modules 48A and 48B respectively represent the hosts 34A and 34B, and the identity IDK corresponding to the radio module
20 48K represents the input apparatus 36.

Please replace paragraph 0027 with the following amended paragraph:

Step 103: the user selects a target host to be inputted via an input interface
25 52 of the input apparatus 36. For example, if the user wants to input data to the host 34A, the user can select the identity IDA that represents the host 34A from the ~~column~~ row 59A of the identity table 58 on the input interface 52, and transmit the identity IDA of the host 34A to the control circuit 50.

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Please replace paragraph 0037 with the following amended paragraph:

5 Step 206: the host 34C will ask the user if the user wants to utilize the input apparatus 36 as an interface after receiving the identity IDK and other related data. General speaking, each host includes a display for showing messages to the user. When the input apparatus 36 is searched by the host 34C, the user can control the host 34C to update the identity table. In the meantime the radio module 48C of the host 34C will send out a control packet 62 (please refer to Fig.4) including the identity IDK to the input apparatus 36.
10 Moreover, the control packet 62 also includes a control command 64, which will be resolved by the radio module 48K and executed by the control circuit 50, to add a ~~column~~ row 59C for storing the identity IDC of the host 34C in the identity table 58.

Please replace paragraph 0038 with the following amended paragraph:

15 Step 208: after updating the identity table 58, the input apparatus 36 can generate a message (such as an indicator light or a specific sound) to ~~notice~~ notify the user such that the user can control the input apparatus 36 to input mode (i.e. step 100 shown in Fig.3). The user can select to input to the host 34A, 34B, or 34C by the input apparatus 36. In
20 addition, the input apparatus 36 can send a message to the host 34C after updating the identity table, such that the host 34C can ~~notice~~ notify the user that the input apparatus 36 has finished updating the identity table. Or the host 34C can control the input apparatus 36 to the input mode by other control packet. If the input apparatus 36 and the host 34C are already connected, the connection can also be closed in this step.

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Please replace paragraph 0040 with the following amended paragraph:

Besides adding a new ~~column~~ row in the identity table 58, the procedure

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200 can also be used to edit the identity table 58. In step 206, the user can edit the identity table 58 (such as delete a ~~column~~ row, change the identity, exchange two identities with each other in the ~~column~~ identity table 58, and add a new ~~column~~ row manually) via the input apparatus 36 by

5 changing the control command 64 of the control packet 62. Generally speaking, the hosts are more efficient and have better display than the input apparatus, therefore the user can utilize the better execution ability and better display function to edit the identity table 58, while the input

10 apparatus 36 can just maintain simple hardware that support the input function. For editing the identity table, the user can execute an application program in the host to generate a control command. The control command will then be packeted in a control packet, and transmitted to the control circuit 50 of the input apparatus 36 by the radio module of the host to edit the identity table. While some hosts may not be capable of supporting the

15 application program, the user can still utilize another host to update the identity table. For example, if a new host 34D (a mobile phone) is added to the electronic system 30 shown in Fig.4. Since the host 34D is a mobile phone, it cannot generate a control packet 36 to edit the identity table 58 of the input apparatus 36. Meanwhile, if the host 34A supports the application

20 program, the user can send a control packet including the identity of the host 34D through the host 34A to the identity table 58 of the input apparatus 36. Wherein the host 34A can obtain the identity of the host 34D by the wireless connection between the host 34A and host 34D.

25 Please replace paragraph 0041 with the following amended paragraph:

Please refer to Fig.6 (also Fig.2 as well). Fig.6 is a schematic diagram of the input apparatus 36 in an embodiment of the present invention. In the

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preferred embodiment of the present invention, the input apparatus 36 is a keyboard, and the interface 52 of the input apparatus 36 includes different keys 53. As shown in Fig.6, switch keys such as 68A and 68B of the input interface 52 are used to control the input apparatus 36 to input to a certain host. For example, when the user presses the switch key 68A, the input interface 52 will select to read out the ~~column~~ row 59A in the identity table 58 (refer to Fig.2), such that the user can input to the host 34A. Similarly, if the user presses the switch key 68B, the user can input data and commands to the host 34B. Additionally, indicator lights (such as 70A and 70B shown in Fig.6) can be installed in the input apparatus 36 to ~~notice~~ notify which host the user is inputting to. For example, when the switch key 68A is pressed, the indicator light 70A will be lighted up. Moreover, the switching function of the input interface 52 can be carried out by combining a switch key 72 with one another key in the input interface 52 as shown in Fig.6A. For example, the user can press the switch key 72 and the key representing "1" in the input interface 52 together to select the ~~column~~ row 59A in the identity table 58. Similarly, when the user presses the switch key 72 and the key representing "2" together, the input interface 52 will select the ~~column~~ row 59B in the identity table 58 so that the user can input to the host 34B. Furthermore, the switching function of the input interface 52 can also be carried out by key combination. For example, the user can press the "ctrl" key, the "alt" key, and a certain key in the input interface 52 together to select a certain host. And a simple display 74 (such as an LED panel) can be installed in the input interface 52 to show which host the user is inputting. What is more, a message can be shown in the display of the host to show if the host is receiving input data from the input apparatus 36. It is worth noticing that the wireless input apparatus 36 can also be a mouse or a touch pad.